

#### REMARKS

Claims 1-22 are in this application. Claims 1-4, and 11-22 are withdrawn from consideration as being drawn to a non-elected invention, and claims 5-10 are rejected. By the present amendment claims 1-4 and 11-22 are hereby canceled without prejudice or disclaimer, claims 5-10 are amended, and new claims 23-25 are hereby added. As they are fully supported by the original application, the amendments and new claims add no new matter.

In view of the above-described amendments and following remarks, reconsideration of claims 5-10, and consideration of new claims 23-25 are respectfully requested.

#### Claim Objections

Claim 10 is objected for reciting a non-existent claim. Claim 10 has been amended to delete reference to claim 25. Applicants submit that the amendment overcomes the objection.

#### § 101 Rejections

Claims 9 and 10 are rejected under 35 USC §101 as being “directed to non-statutory subject matter”. (See page 2 of the Office Action.) Claims 9 and 10 recite primers. Primers are oligonucleotides that typically are synthesized. In other words, primers are made by man and are not naturally occurring. Accordingly, applicants submit that claims 9 and 10 meet the requirements of 35 USC §101. Nonetheless, to expedite prosecution of the present application, applicants have amended claims 9 and 10 to indicate that the primers are purified, as the synthetic process may comprise a purification step in which the primers are separated from other products and/or reactants in the synthetic mixture.

#### §112 REJECTIONS

Claims 5-7 are rejected under 35 USC § 112, second paragraph, “as being indefinite”. (See page 3 of the Office Action.)

Applicants submit that the removal of the phrase “under stringent conditions” from claim 5 overcome the rejection.

Claims 5-7, 9 and 10 are rejected under 35 USC § 112, first paragraph, "as failing to comply with the written description requirement". (See page 3 of the Office Action.)

Claims 5-7, 9 and 10 are also rejected under §112, first paragraph. The patent office stated.

The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. (See page 6, of the Office Action.)

Claim 5 has been amended to recite an isolated polynucleotide comprising a sequence that encodes a protein comprising the amino acid sequence set forth in SEQ ID NO: 2, or the complement of said sequence, or both. Applicants submit that claim 5, as amended, meets both the written description requirement and the enablement requirement of §112.

Claim 6 has been amended to recite a polynucleotide that encodes a protein that interacts with and activates the estrogen receptor and progesterone receptor. In addition, claim 6 has been amended to recite that the encoded protein has a sequence that is at least 85% identical to SEQ ID NO:2, and that the differences between SEQ ID NO: 2 and the sequence of the proteins encoded by the claimed polynucleotide are due to conserved amino acid substitutions. Applicants submit that claim 6, as amended, meets the written description requirement of §112. Since it would require nothing more than routine experimentation to make and use the polynucleotides of claim 6, as amended, applicants submit that claim 6, as amended, also meets the enablement requirement of §112.

Claim 7 depends from claim 5, which meets both the written description and enablement requirement of §112. In addition, applicants have amended claim 7 to recite that the isolated polynucleotide is incorporated into an expression vector, viral vector, or liposome. Accordingly, claim 7, as amended, meets both the written description requirement and enablement requirement of §112.

Claim 9 has been amended to recite a primer set in which the primers have sequences identical or complementary to 10 or more contiguous nucleotides in the protein encoding portion of SEQ ID NO:1, and a G+C content of at least 40%. Applicants submit that the amendments overcome the rejections.

Claim 10 has been amended to recite a primer set in which one primer comprises SEQ ID NO. 3 and the other primer comprises SEQ ID NO. 4. As Claim 10, as amended, meets both the

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written description and the enablement requirements of §112, the rejections should be withdrawn.

§ 102 Rejections

Claims 5 and 7-10 are rejected under 35 USC 102 (b) as being anticipated by GenBank accession number AA687318 (24 December 1997).

GenBank accession number AA687318 does not disclose an isolated polynucleotide comprising a nucleic acid sequence encoding a protein comprising SEQ ID NO:2 or a polynucleotide whose sequence is the complement of such nucleic acid sequence, as recited in claim 5 as amended. Lacking such a disclosure, GenBank accession number AA687318 does not anticipate claim 5 or claim 7, which depends from claim 5.

GenBank accession number AA687318 does not disclose a polynucleotide comprising a sequence which is complementary to SEQ ID NO: 1 or the protein encoding portion of SEQ ID NO: 1, as recited in claim 8 as amended. Lacking such a disclosure, GenBank accession number AA687318 does not anticipate claim 8.

GenBank accession number AA687318 does not disclose a primer set in which the primers have sequences identical or complementary to 10 or more contiguous nucleotides in the protein encoding portion of SEQ ID NO:1, as recited in amended claim 9, or a primer set in which the primers comprise SEQ ID NO: 3 and SEQ ID NO: 4, as recited in claim 10, as amended. Lacking such disclosures GenBank accession number AA687318 does not anticipate amended claims 9 or 10.

In view of the amendments and remarks, applicants submit that claims 5-10 and 23 are now in condition for allowance. Prompt notice of such allowance is respectfully requested. If there are any questions regarding the amended claims, the Examiner is encouraged to contact Pamela A. Docherty, the attorney of record for this application, at (216) 622-8416.

Respectfully submitted,

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